

7 LAYERS OF WARMTH

On June 14, Army Chief of Staff Gen. Peter Schoomaker and Sgt. Maj. of the Army Kenneth Preston approved the concept of the new cold-weather line. A decision is pending on the final version.

All 12 items will either match the pixelated pattern of the Army Combat Uniform or be solid in one of the ACU's three colors — desert sand brown, foliage green 504 or urban gray. What appears black in the pictures on these pages will actually be issued as foliage green 504, the model wore a preproduction version.

Keeping warm

LAYER 1



BASE LAYER

Similar to the current black silk-weight long underwear top and bottom, but the color is now desert sand brown instead of black.

LAYER 2



IMPROVED MIDWEIGHT LAYER

Polyester grid fleece top and bottom in foliage green 504. It features a zip neck and can be worn alone or over the base layer.

Cold-weather gear gets soft shell, breathability

By Matthew Cox
TIMOTHY HEALY WRITER

While daytime temperatures remain around the 100-degree mark, you can bet soldiers in Iraq and Afghanistan aren't worried about keeping warm in the field.

As winter nears, however, the nighttime temperatures will soon turn increasingly frigid in those combat zones. Fittingly, perhaps, the Army has unveiled its new cold-weather clothing system.

The Generation III Extended Cold Weather Clothing System — slated for issue to Army units headed to Afghanistan this winter — departs from the current "snivel gear" and instead features seven new layers of commercial style insulation.

If all goes well, clothing officials hope to start issuing the new line by late 2006.

Clothing experts, working with the Infantry Center, began looking for new options in cold-weather gear in May 2001 to replace the Generation I and II ECWCS that soldiers say is too bulky and just doesn't breathe enough during the rigors of cold-weather combat.

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PHOTOS BY JAMES J. LEE

Photos of Sgt. 1st Class Jeff Myhre

LAYER 3



IMPROVED FLEECE JACKET

A 200-weight fleece jacket designed to replace the current black 300-weight fleece jacket with no loss of warmth. But unlike the current fleece, the new jacket will be foliage green 504 and can be worn as an interior or exterior layer. It is equipped with Velcro-style attachment points for name tape, U.S. Army tape and rank insignia. The current black fleece bib overall pants will not be included.

LAYER 4



LIGHTWEIGHT JACKET

Also known as the wind shirt, the item is made of encapsulated nylon to help block wind. It comes in the ACU pixelated pattern, has a full zipper front, shoulder pockets and vertical zipper openings toward the front with a net interior to use to dry out socks and gloves. It can also be worn as an interior or exterior layer and comes with Velcro-style attachment points for name tag, U.S. Army tape and rank insignia.

LAYER 5



MEDIUM-WEIGHT JACKET AND TROUSERS

This is a soft shell designed to replace the ECWCS hard shell jacket and trousers. It's pixelated like the ACU and highly wind- and water-resistant. It resembles the ACU top with its shoulder pockets, attachment points for name, U.S. Army tapes and rank insignia. And it can be worn as an interior or exterior layer.

LAYER 6



IMPROVED RAIN SUIT

Jacket and trousers are pixelated like the ACU on the outside. It has a waterproof layer on the inside. Designed as an exterior layer, it has shoulder pockets and a pass-through pocket in the front that also helps to vent moisture from the inside. The trousers have zippers on the legs so they can be put on over boots.

LAYER 7



HEAVYWEIGHT JACKET AND TROUSERS

These are designed to be worn in arctic and other extreme cold environments. They're constructed of a man-made downlike fiber that retains warmth and loft even when wet. It's urban gray and intended to be worn as an exterior layer.

Winter gear

From Page 14

Generation I, introduced in the early 1990s, includes a hard-shell jacket and trousers with a semi-permeable membrane, to keep wind and moisture out while letting excess heat and perspiration escape. The system also has both light and medium polypropylene long underwear, a heavy fleece jacket and bib overalls.

There also is a quilted nylon jacket and pair of pants filled with polyester batting meant to be worn underneath the outer shell in more extreme cold.

Generation II is basically the same with minor improvements to the jacket such as a hood that folds into the collar.

But soldiers who fought in Operation Anaconda in the mountains of Afghanistan in March 2002 complained of getting extremely hot while moving around in the current ECWCS gear and then shivering when they stopped from excessive sweat that took too long to dry.

"Soldiers were going out and buying a lot of commercial, state-of-the-art cold-weather items because we really haven't updated it in 20 years," said Maj. Jay Spencer, who headed up the effort for Product Manager Soldier Clothing and Individual Equipment.

The Army has tried to compensate by issuing silk-weight polyester long underwear similar to what special operations forces wear though the Rapid Fielding Initiative. And now it's going for a whole new system.

The new Generation III gear starts with those silk-weights as a base layer and adds six more.

"We are giving soldiers more options, so they can be comfortable in a variety of situations," Spencer said.

The system was first tested last winter in Alaska along with a number of other cold-weather products by 5,000 soldiers from the 172nd Brigade (SBCT).

On June 14, Army Chief of Staff Gen. Peter Schoomaker and Sgt. Maj. of the Army Kenneth Preston approved the concept of the new cold-weather line.

The hope is that the final version will be ready for Schoomaker to sign off by next summer, Spencer said.

If adopted, the plan is to issue every soldier every layer except the loft layer — the heavyweight jacket and trousers — designed for extreme cold environments such as Alaska, Spencer said.

The Army could start issuing the new items by winter 2006 through the Rapid Field Initiative, as well as through each unit's Central Issuing Facility as cold-weather items currently are issued.

Soldiers would get:



Soldiers who fought in Afghanistan in March 2002 complained of getting hot while moving around in the current cold-weather gear, but shivering when they stopped because excessive sweat took too long to dry. Above, soldiers with Alpha Company, 2nd Battalion, 187th Infantry Regiment, 3rd Brigade, 101st Airborne Division, wait to leave for the operation that became the first fierce battle in Afghanistan.



PHOTOS BY JAMES J. LEE, TIMES STAFF



SPECIAL FEATURES

The Generation III cold-weather gear incorporates some common-sense features to keep the wind out, such as Velcro cuffs and drawstrings.

- The base-layer silk-weight long underwear.
- The midweight grid-fleece long underwear.
- The improved fleece jacket designed to be worn as an outer layer.
- The lightweight jacket.
- The medium-weight jacket and trousers.



MIX IT UP

The Heavyweight Trousers don't have to be worn atop all six other layers of the new cold-weather gear. Soldiers can mix layers depending on the conditions they are facing.

■ The improved rain suit jacket and trousers.

For now, though, it's going only to soldiers in two brigades of the 10th Mountain Division at Fort Drum, N.Y., so they can take it with them on their planned deployment to Afghanistan this fall for a real-world evaluation.

The new system also packs more



If the new cold-weather gear is adopted, the Army will issue every soldier every layer except the loft layer, the heavyweight jacket and trousers, designed for extreme cold environments such as Alaska.

compactly than the old snivel suits.

It requires one-third less space in the rucksack than the current gear and weighs about 3 pounds less than the current 11- to 12-pound snivel suit, said Sgt. 1st Class Jeff Myhre, the lead noncommissioned officer for ensuring soldiers' needs are met at PM Soldier Clothing and Individual Equipment.

"If you were to take three or four MREs, that's the [extra] space you'd see in your ruck," Myhre said.

Of all the layer changes, the most significant change is going from the hard outer-shell concept to a soft shell like the medium-weight jacket and pants, Spencer said.

The specially treated nylon layer is very light and works best when used with other layers rather than wearing it alone.

"Although the soft shell adds some warmth, it's really designed to encapsulate the layers you are wearing and shield you from wind and moisture," Myhre said.

While not waterproof, the fabric sheds water in all but severe downpours, he said.

During the test in Alaska, soldiers would wear one of the long-john layers and the medium-weight jacket and trousers on the outside during physical activities.

"It's the layer that soldiers were wearing constantly in Alaska," said Sgt. Maj. Thomas House, who works at the Infantry Center at Fort Benning, Ga., as a representative for soldier needs for Training and Doctrine Command.

Once soldiers stopped, they could put on another layer over the medium-weight shell instead of having to remove it as they would if they were wearing the current ECWCS hard shell, House said.

If all goes as planned, soldiers from the 10th Mountain Division will offer feedback on the items in the spring so a final round of improvements can be made, said Al Dassonville, the deputy for PM Soldier Clothing and Individual Equipment.

"This will be the first large-scale soldier evaluation," Dassonville said.

"It isn't going to be a bunch of engineers sitting around trying to figure it out. Soldiers will tell us what works." □